Measurement. Wing, 9, 325, 326 mm.; tail 229 mm.

Type in Athenæi Ornithologici Momiyamici. 2. Prov. Ohsumi, spring in 1924. Purchased. Provisional No. 1x.39.

Distribution. Southern districts of Kiusiu.

NOTES ON ALECTORIS CHUKAR, WITH DESCRIPTIONS OF SIX NEW SUBSPECIES.

On behalf of Dr. P. P. Sushkin, the Editor forwarded the following descriptions :--

Alectoris chukar * caucasica, subsp. nov.

Nearest to *cypriotes* Hart., but still greyer and lighter. In spring, back of neck largely light neutral-grey; interscapulium and inner scapulars greyer than mouse-grey; the narrow band across the interscapulium brownish-drab. Crown of the head tinged with fawn. White eyebrow-stripe broad, 4-5 mm. Ear-coverts light chestnut, without blackish. Black bars of the flanks broad, as in *cypriotes*; chestnut edgings dark, and present on few feathers only.

Rather large: wing, & 160, \$ 140 mm.

Type in the Zool. Mus. Russ. Acad. Sci., 8398, S, Akhaltzykh, Transcaucasia, 25 (13) May, 1878, Mikhalovski leg.

Twelve specimens examined.

Distribution. Main Caucasus range, both slopes.

NOTE.—Birds from Ararat, Kars, and Erzerum seem to be slightly different, the fawn tinge of the interscapulium being more vivid and appearing also on the inner scapulars and innermost secondaries. My material is insufficient for recognizing or rejecting them as separate form.

* I prefer to treat as belonging to Alectoris graca only the forms graca and saxatilis, and to consider the remaining Chukar partridges, beginning by *cypriotes* in the west and with the exception of magna, as forming a separate species, A. chukar, with numerous subspecies. I hope to return to this question elsewhere.

Alectoris chukar shestoperovi, subsp. nov.

Similar to *caucasica*, but paler and duller above (rump and tail-coverts between mouse-grey and deep olive-grey), black bars of the flanks narrower, 3.5-5 mm. instead of 4.5-7 mm.

Wing 157-162 mm.

Type in the Zool. Mus. Russ. Acad. Sci., 15491, 3, Asilme, Kopet-dagh, near Askhabad, Transcaspia, 19 March, 1926, Shestoperov leg.

Sixteen specimens examined.

Distribution. Massif, Great Balkhan (Transcaspia), and Kopel-dagh, about as far east as the meridian of Askhabad. From near Kaakhka $(59\frac{1}{2}^{\circ} \text{ E. long.}, 37\frac{1}{2}^{\circ} \text{ N. lat.})$ begins the area of *koroviakovi*, which inhabits Eastern Persia.

Alectoris chukar fallax, subsp. nov.

Differs from falki Hart. (Russian Turkestan) in being somewhat paler and duller on the upper side, the white eyebrow-stripe narrower; the crown of the head uniform fawn-colour; the chest paler and with narrow black bars on the flanks. Nape light neutral-grey washed with greyisholive; fore part of the interscapulium light cinnamon-drab or somewhat brighter, this coloration extending on to the outer webs of the secondaries and partly on to the wingcoverts; hind half of the interscapulium between drab and light greyish-olive; rump, upper tail-coverts, and wing almost olive-grey. Chest lighter than in falki, strongly washed with yellowish down the middle, and the black bars of the flanks narrow, 2-4 mm.

Wing, 3 150-164 mm., 9 146-151.

Type in the Zool. Mus. Russ. Acad. Sci., 13635, \mathcal{S} , Kyzyl-synyz, Kuruk-tag range east of Bagratch-Kul Lake, syst. of Eastern Tian Shan, December 1893, Roborowski and Kozlov leg.

Fourteen specimens examined.

Distribution. Southern slopes of the Eastern Tian Shan system, and Northern Kashgaria (Utch-Turfan, Ak-su, between Ak-su and east of Bagratch-kul). Obs. Three specimens from the head-waters of Taushkandarya (riv. Kaïndy) belong here, but, owing to their broader evebrow-stripes and feebler development of the fawn crown-

patch, are intermediate between that form and *falki*. Other pale forms from western parts of Asia to be taken into account here are: *pallescens* Hume (Kharbu, Ladakh), *pallida* Hume (Karakash River, Chinese Turkestan, N. slope of Western Kwen-lün), and *subpallida* Zarudn. (hills of Kyzyl-kum desert, Russian Turkestan). Dr. Hartert (Novit. Zool. 1917) unites *pallescens* and *pallida*. On examination of a beautiful specimen of *pallescens*, in breeding-plumage, from type-locality (coll. by Col. R. Meinertzhagen), and of our series of eighteen birds from Kwen-lün system between Karyadarya and Kumboldt range, I prefer to keep these forms separate, their distinctive characters agreeing fully with those pointed out by Hume.

A. c. pallida is the palest, and looks as though it was dusted through with clay powder; grey tints pale and strongly yellowish on the upper side (nape and lower back with tailcoverts near smoke-grey, wing more yellowish); superciliary stripe washed with buff; chest pallid neutral-grey, the fore half covered with olive-buff; belly and lower tail-coverts paler than pinkish buff; black bars of the flanks narrow, 2-3 mm., chestnut edgings pale and few; quills very light, near drab. Wing 150-170 mm.

Distribution. Southern part of the Chinese Turkestan (Kwen-lün system), northern part being inhabited by fallax.

A. c. pallescens is a pale form, much lighter than falki but darker than pallida, and different from the latter by nearly pure grey colours of the nape and back (near pale neutralgrey); wings between mouse-grey and olive-grey; black bars of the flanks broader, 3-5 mm. Seems to be proper to Karakorum range, occurring at much higher levels than pallida.

A. c. subpallida is of equal intensity of coloration as pallescens, also with pure tone of the grey of the nape and lower back; crown only washed with vinaceous, without a crownpatch; interscapular region of a less yellowish tint than in pallescens (light cinnamon-drab in the fore half, behind lighter and paler than light drab); cinnamon-drab of the upper back does not extend upon the sides of the chest; wings paler and more yellowish than in pallescens; anteapical edgings of the external web of the secondaries broad, 5 mm., and strongly tinged with buff (in pallescens, narrow and whitish). Wing, \mathcal{J} , 166-170 mm.

Distribution. Desert Kyzyl-kum and Western Bokhara.

Alectoris chukar potanini, subsp. nov.

Similar to falki Hart., but differs in the breedingplumage in the following characters :- Bright fawn covers the whole of the crown, leaving only a narrow stripe of grey above the white evebrow-stripe. Eyebrow-stripe narrow, 2.5-3 mm.; grey colour of the nape extends only for about 1 cm. in length, being almost covered by brownish in fresh plumage. Base of the hind-neck and fore part of the interscapular region between vinaceous-fawn and onion-skin pink, this colour extending broadly upon the sides of the chest. Posterior part of the interscapulium washed with yellowish. Lower back and upper tail-coverts near neutralgrey tinged with greenish. Chestnut edges of the flankfeathers less developed than in falki; black bars 4-5 mm. Innermost secondaries more or less tinged with cinnamon.-From fallax it differs in the darker coloration, purer hues, and broader bars of the flank-feathers. From pubescens differs by purer hues of grey (lower back light neutral-grey instead of light greyish-olive) and absence of prevailing rosyvinaceous tint of the upper side.

Wing, ♂ 154-169 mm., ♀ 148-158.

Type in the Zool. Russ. Acad. Sci. 13639, ♂, Burgustengol, Alaskan range, Kozlov leg., 31 (18) May, 1908.

Fifty specimens examined.

Distribution. Alashan range, probably also hills of Central Gobi between it and Mongolian Altai, and the whole of the Mongolian Altai from its easternmost end as far west as the headwaters of the Kara-Irtysh and middle course of Kobdo; south-western and southern slope of Khangai. To this form belong also two birds from northern slope of eastern Tianshan west of the meridian of Urumtchi.

Note.—Birds from Alashan range and Khurkhu Mts. are somewhat brighter, the fawn belt of the upper back being broader, of a cinnamon tint, extending on to the innermost secondaries, and the wing being slightly lighter and more greyish. Birds from near Kobdo are generally duller, the fawn belt of the back narrower, no reddish on the innermost secondaries, and the wing somewhat darker. Birds from Ikhe-bagdo are nearer to the Kobdo birds. But the difference is not constant, a brighter bird having been found even at Khandagatai, sources of the Kara-Irtysh.

Alectoris chukar dzungarica, subsp. nov.

Narrow eyebrow-stripe, fawn patch occupying nearly whole of the crown, scarcely developed grey on the nape, sides of the chest coloured with fawn, narrow vinaceous band of the fore interscapulium, and reddish tinge nearly or totally absent on the wings as in potanini. Differs from potanini by darker coloration above and on the chest, and more developed white on the flanks. In spring, the crownpatch fawn, narrowly bordered on the sides and in front by neutral-grey; nape neutral-grey to deep olive-grey for about $1\frac{1}{2}$ cm.; band across the fore interscapulium darker and of a more rosy tinge than fawn-colour, the remainder between drab and mouse-grey; rump and tail-coverts darker than neutral-grey and tinged with olivaceous, wing mousegrey. Chest pale neutral-grey, in the fore-half washed with deep olive-buff, sides of the chest rosy-fawn. Interspaces of black flank-bars with white prevailing .- From falki, which is nearest geographically, it differs in the dark grey colour of the upperside and wing, narrow white supercilium, large crown-patch, narrow fawn band of the interscapulium, and more white on the flanks.

Wing, & 153-163 mm., 9 145-158.

Type in the Zool. Mus. Russ. Sci., 3, Monrak range, Tarbagatai system, Kolomiitzov leg., 4 May (22 Apr.), 1878. Thirty specimens examined.

Distribution. Tarbagatai and northern Semiretchie, bassin of Ito included; east as far as Kuldja and Algo (to the southwest, from Vernoie and Issyk-kul, begins the range of *falki*; in the east, near Urumtchi on the northern slope of eastern Tianshan, *potanini* has been found, and on the Algo river begins the range of *fallax*, range of *dzungarica* wedging in between them).

Alectoris chukar obscurata, subsp. nov.

Similar to *potanini* and *dzungarica*. Darker than all the foregoing. In winter much darker and of a greyer tone above than corresponding plumage of *dzungarica*; crown-patch near benzo-brown, posterior part of the interscapulium greener than mouse-grey, rump and tail-coverts near neutral-grey, greener and darker; chest darker than pale neutral-grey; flanks as in *dzungarica*.

Wing (not sexed) 147-159 mm.

Type. Sushkin's private collection, part of the Tannu-ola range (winter, 1913.3.14, western), obtained through merchants from native hunters.

Eight specimens examined.

Distribution. Western part of the Tanu-ola range, probably both slopes; possibly also southern slope of the West-Sayan (bassin of Kemchik).

Substitution of a Name.

Dr. SUSHKIN also sent the following note on the name *Perdix hodgsoniæ occidentalis* :--

"In the Bull. B. O. C., No. cceviii. (Nov. 1926), I have described a new form of *Perdix hodgsoniæ* as *P. hodgsoniæ occidentalis*. Dr. Cl. B. Ticehurst has pointed out to me that this name is preoccupied by *Perdix daurica occidentalis* Buturlin, and I wish therefore to substitute the following name :—

Perdix hodgsoniæ nanshanicæ, nom. nov.

(=Perdix hodgsoniæ occidentalis Sushkin, Bull. B. O. C. 1926, nec Perdix daurica occidentalis Buturlin, 1908.)